

This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:**

- 1-78. Canceled
79. (New) A method for assessing the presence or absence of a disease state in a subject comprising:
- stabilizing a mixture of cells in whole blood; wherein said mixture of cells comprises a plurality of cell types obtained from the subject;
  - labeling at least one cell type from the mixture using cell type-specific reagent;
  - assessing the content of cytoskeletal protein associated with at least two cell types; and
  - correlating the content with the presence or absence of a disease state in the subject.
80. (New) The method of claim 79 wherein the correlating step is performed by comparing the content of cytoskeletal protein associated with said at least two cell types to the content of corresponding cytoskeletal protein associated with corresponding cell types from a control.
81. (New) The method of claim 79 further comprising a step of providing a biologically active agent to the mixture of cells before stabilizing the cells, wherein the biologically active agent activates a specific cell type in the plurality of cell types.
82. (New) The method of claim 79 further comprising a step of providing a plurality of biologically active agents to the mixture of cells before stabilizing the cells, wherein the plurality of biologically active agents activate separate cell types in the plurality of cell types.
83. (New) The method of claim 81 wherein the biologically active agent is a stimulant or a depressant.
84. (New) The method of claim 82 wherein the correlating step is performed by

comparing the content of cytoskeletal protein associated with said at least two cell types to the content of corresponding cytoskeletal protein associated with corresponding cell types from a control.

85. (New) The method of claim 79 further comprising a step of determining the size and granularity of the at least two cell types.
86. (New) The method of claim 85 further comprising a step of comparing the content of the cytoskeletal protein associated with the at least two cell types, the cell size, and the cell granularity of the at least two cell types with a content of cytoskeletal protein, cell size, and cell granularity in corresponding cell types from a control.
87. (New) The method of claim 79 wherein the at least two comprise at least one of an immune cell.
88. (New) The method of claim 79 wherein the at least two cell types comprise at least one of a lymphocyte, neutrophil, monocyte, eosinophil, erythrocyte, platelet, or basophil.
89. (New) The method of claim 79 wherein the cytoskeletal protein is F-actin.
90. (New) The method of claim 79 wherein the mixture of cells is collected using a non-chelating anticoagulant.
91. (New) The method of claim 79 wherein the cells are stabilized at a temperature of from about 27 to about 50 degrees Celsius.
92. (New) The method of claim 79 wherein the cells are stabilized at physiological temperature.
93. (New) The method of claim 79 wherein assessing the content of the cytoskeletal protein is performed using a flow cytometer.
94. (New) The method of claim 79 further comprising the step of labeling cytoskeletal protein associated with the at least two cell types.

95. (New) The method of claim 94 wherein assessing the content of the cytoskeletal protein is performed by microscopy.
96. (New) The method of claim 79 wherein the cells are stabilized by fixation.
97. (New) The method of claim 81 wherein the biologically active agent is a toxin.
98. (New) The method of claim 97 wherein the biologically active agent is a bacterial or viral toxin.
99. (New) The method of claim 81 wherein the biologically active agent is a drug or a small molecule.
100. (New) The method of claim 99 wherein the agent is an enzyme regulator, immune modulator, or chemotherapeutic agent.
101. (New) The method of claim 79 wherein the disease state is bacterial infection.
102. (New) The method of claim 79 wherein the disease state is viral infection.
103. (New) The method of claim 79 wherein the disease state is cancer.
104. (New) The method of claim 79 wherein the disease state is exposure to biological or chemical agent.
105. (New) The method of claim 96 wherein the cytoskeletal protein is F-actin and the F-actin is labeled using an F-actin probe.
106. (New) A method for monitoring the progression of a disease state in a subject comprising:
- stabilizing a mixture of cells in whole blood, wherein said mixture of cells comprising a plurality of cell types obtained from the subject;
  - labeling at least one cell type from the mixture using cell type-specific reagent; and
  - assessing the content of cytoskeletal protein associated with at least two cell types; and

correlating the content with progression of disease state in the subject.

107. (New) The method of claim 106 wherein the correlating step is performed by comparing the content of cytoskeletal protein associated with said at least two cell types to the content of corresponding cytoskeletal protein associated with corresponding cell types from a control.

108. (New) The method of claim 106 further comprising a step of providing a biologically active agent to the mixture of cells before stabilizing the cells, wherein the biologically active agent activates a specific cell type in the plurality of cell types.

109. (New) The method of claim 106 further comprising a step of providing a plurality of biologically active agents to the mixture of cells before stabilizing the cells, wherein the plurality of biologically active agents activate separate cell types in the plurality of cell types.

110. (New) The method of claim 108 wherein the biologically active agent is a stimulant or a depressant.

111. (New) The method of claim 109 wherein the correlating step is performed by comparing the content of cytoskeletal protein associated with said plurality of cell types to the content of corresponding cytoskeletal protein associated with corresponding cell types from a control.

112. (New) The method of claim 106 further comprising a step of determining the size and granularity of the at least two cell types.

113. (New) The method of claim 112 further comprising a step of comparing the content of the cytoskeletal protein associated with the at least two cell types, the cell size, and the cell granularity of the at least two cell types with a content of cytoskeletal protein, cell size, and cell granularity in corresponding cell types from a control.

114. (New) The method of claim 106 wherein the two or more cell types comprise at least one of an immune cell.

115. (New) The method of claim 106 wherein the two or more cell types comprise at least one of a lymphocyte, neutrophil, monocyte, eosinophil, erythrocyte, platelet, or basophil.

116. (New) The method of claim 106 wherein the cytoskeletal protein is F-actin.

117. (New) The method of claim 106 wherein the mixture of cells is collected using a non-chelating anticoagulant.

118. (New) The method of claim 106 wherein the cells are stabilized at a temperature of from about 27 to about 50 degrees Celsius.

119. (New) The method of claim 106 wherein the cells are stabilized at physiological temperature.

120. (New) The method of claim 106 wherein assessing the content of the cytoskeletal protein is performed using a flow cytometer.

121. (New) The method of claim 106 further comprising the step of labeling cytoskeletal protein associated with the at least two cell types.

122. (New) The method of claim 121 wherein assessing the content of the cytoskeletal protein is performed by microscopy.

123. (New) The method of claim 106 wherein the cells are stabilized by fixation.

124. (New) The method of claim 108 wherein the biologically active agent is a toxin.

125. (New) The method of claim 124 wherein the biologically active agent is a bacterial or viral toxin.

126. (New) The method of claim 108 wherein the biologically active agent is a drug or a small molecule.

127. (New) The method of claim 108 wherein the biologically active agent is an enzyme regulator, immune modulator, or chemotherapeutic agent.

128. (New) The method of claim 106 wherein the disease state is bacterial infection.
129. (New) The method of claim 106 wherein the disease state is viral infection.
130. (New) The method of claim 106 wherein the disease state is cancer.
131. (New) The method of claim 106 wherein the disease state is exposure to biological or chemical agent.
132. (New) The method of claim 122 wherein the cytoskeletal protein is F-actin and the F-actin is labeled using an F-actin probe.
133. (New) A method for measuring a clinical parameter in a subject comprising:
- i. assessing the content of cytoskeletal protein associated with a plurality of cell types from each of a plurality of subjects belonging to a least two population groups differing with respect to at least one clinical parameter associated with a disease state;
  - ii. comparing the content of corresponding cytoskeletal protein associated with said plurality of cell types from said groups to each other to create cytoskeletal protein profiles that are associated with the clinical parameter.
134. (New) A method of generating a classification system for classifying a cell sample:
- i. providing a learning set comprising a plurality of data objects, wherein each data object comprises data representing measurements of cytoskeletal protein in sample, and wherein the samples are classified according to at least two different clinical parameters; and
  - ii. generating a classification model, wherein the classification model classifies a cell sample as indicative of a clinical parameter, indication, or condition.